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(71) Applicants:  
• **SIEMENS AKTIENGESELLSCHAFT**  
80333 München (DE)  
• **International Business Machines Corporation**  
Armonk, N.Y. 10504 (US)  
• **KABUSHIKI KAISHA TOSHIBA**  
Kawasaki-shi, Kanagawa-ken 210-8520 (JP)

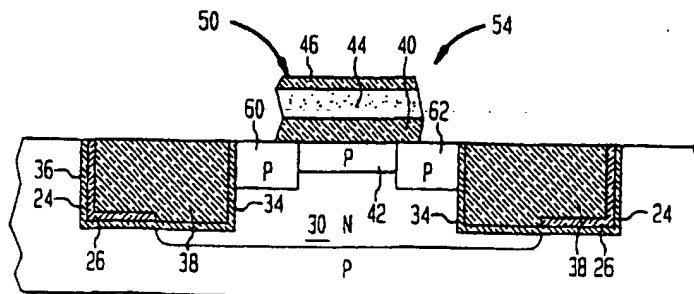
(72) Inventors:  
• **Rengarajan, Rajesh**  
Hopewell Junction NY 12533 (US)  
• **Srinivasan, Radhika**  
Mahwah, NJ 07437 (US)  
• **Inoue, Hirofumi**  
Fishkill, NY 12524-1815 (US)  
• **Beintner, Jochen**  
Wappingers Falls, NY 12590 (US)

(74) Representative: **Litchfield, Laura Marie et al**  
Haseltine Lake & Co.  
Imperial House  
15-19 Kingsway  
London WC2B 6UD (GB)

**(54) Electrically isolated semiconductor devices**

(57) A method for forming a electrically isolated semiconductor devices in a silicon body. A trench is formed in a selected region of the body. A barrier material is deposited over sidewalls of the trench. Portions of the barrier material are removed from a first sidewall portion of the trench to expose such first sidewall portion of the trench while leaving portions of such barrier material on a second sidewall portion of the trench to form a barrier layer thereon. A dielectric material is deposited in the trench, a portion of dielectric material being de-

posited on the exposed first sidewall portion of the trench and another portion of such deposited dielectric material being deposited on the barrier material. The dielectric material is annealed in an oxidizing environment to densify such deposited dielectric material, the barrier layer inhibiting oxidation of the said second sidewall portion of the trench. A plurality of the semiconductor devices is formed in the silicon body with such devices being electrically isolated by the dielectric material in the trench.

**FIG. 3****EP 0 967 636 A3**



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# EUROPEAN SEARCH REPORT

Application Number  
EP 99 30 4717

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The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>19 May 2000</b>	Examiner <b>Giordani, S</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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